

## ABSTRACT OF THE DISCLOSURE

There is provided an optical substrate. The optical substrate includes at least one surface. The at least one surface includes at least one optical structure having a shape and dimensions, wherein the shape and dimensions of each optical structure represents in part a modulation of a corresponding idealized structure. The shape and dimensions of each of the at least one optical structure are determined in part by at least one randomly generated component of modulation wherein the modulation of each of the at least one optical structure is limited by a neighboring optical structure comprised by the surface.